



BULB LOG 27.....5<sup>th</sup> July 2017





### **Lilium mackliniae**

Lilium mackliniae was the first lily I raised from seed and to this day it remains one of my favourite lilies.

It is said that it is not a long lived bulb so I collect and sow some seed most years and we see some variation in the seedlings – some like this one have multiple flowers while other have but a single flower as in the group in the picture below.

Some bulbs only last a few years, often lost to virus infections, but we also have groups of bulbs still going after twenty five years.



***Lilium mackliniae*** with a single flower per stem.



***Lilium mackliniae*** Nagaland form.

## Nomocharis

It is hard not to fall in love with Nomocharis, with that irresistible colour combination of white pink and blackcurrant proven so popular in Erythronium, Hepatica, Hellebore, Paeonia and any number of other genera.

This is another often short lived lily which is also very susceptible to virus and I try and raise seedlings every year, sadly over the last few years we have had no seed set so I must try and get hold of some fresh seeds.



## Nomocharis

One of the reasons, apart from the weather, that I have not had a seed set is that many of the flowers do not have a style, as on the right hand flower, whether it does not form, mal-forms or falls off I am not sure but it does make the flower incapable of being fertilised.



**Trillium hibbersonii**



**Trillium rivale**

When the seeds of *Trillium hibbersonii* are ripe the whole capsule breaks away from the leaf then falls to the ground to shed the seeds – in the wild they are distributed by insects attracted to the sweet elaiosomes attached to the seed.

When the seed of *Trillium rivale* is ripe the capsule simply disintegrates to shed the seeds which also have the elaiosomes to attract insects.

As there are no ants in our garden it is up to us to gather and distribute the seeds or else they just germinate in clusters around the parent plant. I sow *Trillium* seeds when I collect them.



*Corydalis mucronopetala* flowers over some weeks so I often find flowers and seed pods at the same time.



When these seed pods open the two sides violently curl tightly towards the bottom, like a spring, flinging the seeds out - so you have to be vigilant if you want to collect the seeds.



### **Jeffersonia dubia** seed capsules

A number of years ago I got some seeds of *Jeffersonia dubia* from a kind friend and they flowered for the first time last year but I was disappointed that they set no seed. This year I was determined to get seeds so I carefully cross pollinated the flowers between the different seedlings over several days and I have been rewarded by a number of seed capsules. This is the first time we have set seed on this plant so I am fascinated to see the capsules— observing that it has a wrap around capsule with a small flap that peels back to shed the seed when it is ripe. I have also sown these seeds – as a general rule I sow most of the ‘woodland’ type plant seeds as soon as they are ripe.



The **Jeffersonia dubia** flowers earlier in the season.



**Jeffersonia dubia**



A few years back another kind friend sent us a root of the pink form of **Sanguinaria canadensis** and as always it was my aim to get seeds from it. Flowers pictured twelve weeks ago at the beginning of April.



### **Sanguinaria canadensis seeds**

When the pollen was ripe I was very busy with my paint brush and my reward is a single seed pod full of seeds. I do not know if these will produce pink or white flowers. The biggest single step a gardener will ever take is when they start to raise their plants from seed – there are so many advantages starting with allowing you to plant colonies of many plants each a different clone which in turn will increase the chance of yet more seeds in the future. Also each successive generation of seedlings you raise from your own garden seeds will become more tolerant of your local climate and growing conditions.



The pink colour fades as the flowers of *Sanguinaria canadensis* age.



**Anemonella thalictroides**

Also after persistent pollination with my paint brush I am delighted to collect some seeds from *Anemonella thalictroides* for the first time in the garden.



**Anemonella thalictroides seeds**



We used to grow this plant but lost it when it got overgrown by rhododendrons so a year ago I acquired two plants with the aim of getting seed – now we can build a colony.





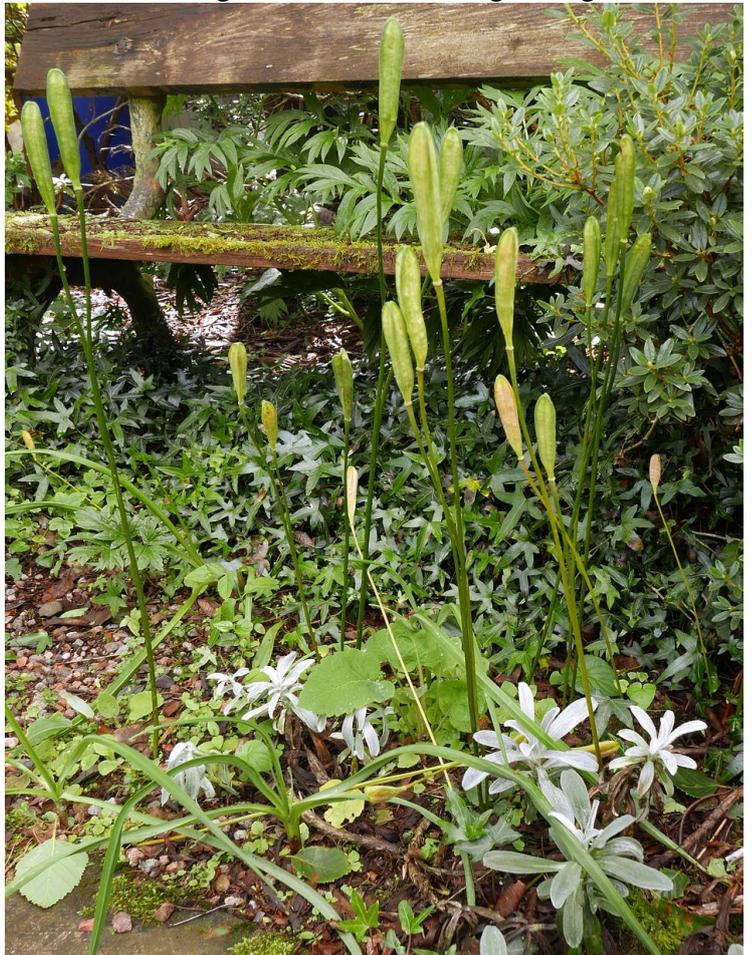
I get exasperated when I hear or read the advice ‘to remove the flowers from your bulbs to prevent them setting seed’ the reason given being that the production of seed will weaken the bulb. How ridiculous is that –bulbs have evolved over hundreds of thousands of years and part of the evolutionary process is to minimise any weakness that could disadvantage the plants.

I have done many trials as well as observing the many bulbs we grow in pots and the garden and I can tell you that bulbs that set seed are not in any way weakened, in fact the opposite is true. A bulb that has set seed will grow for four to six weeks longer than the same type of bulb that is not setting seed and that extra period of growth allows both the bulb and the seed to grow well. The Muscari bulb on the left with seed is bigger than others that did not set seed.

In the picture below left you will see some Fritillaria stems - those that are setting seed are still green which means they are both feeding the bulb as well as supporting the seed production – those that for whatever reason were not successfully fertilised have already died back to the resting bulb.

Some hybrid bulbs are sterile and make an interesting exception to this theory in that for some reason the plant thinks it has been fertilised and so the seed capsule swells and the plant grows on as if it were setting seed, I have observed this in Narcissus, Galanthus, and Erythronium hybrids and there will be others. You think you have a fat seed pod full of seed but when opened it is just full of air - if like me you are impatient and want to check for seed earlier, you can shine a light through the capsule which will show if seed is growing. Now this false pregnancy syndrome does give these hybrids a longer growing season often resulting in these bulbs being that bit more vigorous; many hybrids also form clumps of bulbs an advantage to the gardener.

In the wild bulbs that form clumps are at a disadvantage as they gradually become more congested, having to compete for the same amount of moisture and nutrients until they dwindle and die out just as they would if they are left alone in the garden. However in the garden these bulbs have an advantage - that is we the gardeners because we lift and divide these bulbs on a regular basis facilitating them to become more dominant in gardens than bulbs that never divide and can only be increased by seeds. The green stems and seedpods of the Erythroniums, below right, go on photosynthesising and feeding the bulbs long after the leaves have died back – the growth on ones that did not set seed died back some weeks ago, so have a shorter growing season.





I have now decided to convert all the plunges in what we used as the Fritillaria house into sand beds – last year I converted the one on the right and the far end one from plunges to sand beds and this years I decided to also fill the left hand one with sand and I am now planting bulbs directly in there as well.



I have been very pleased with the success of this new venture –it greatly cuts down on the amount of repotting that I have to do, the bulbs seem to thrive and grow even better than they did in pots plus I like the way they look when they flower all mixed together and not regimented in rows of pots.

I am also enjoying looking for new combinations to extend the season of flowering interest and am concentrating on Alliums which flower after all the other bulbs have gone into summer dormancy.

**Allium crispum**



**Allium gomphrenoides**

Allium gomphrenoides is one of the species that is growing well in the frit-house sand bed.



**Allium gomphrenoides and Triteleia ixioides**



**Triteleia ixioides**

I will continue to grow a lot of bulbs in pots in the other glass houses as you see here in the plunge of 7cm pots where Allium gomphrenoides and Triteleia ixioides are the only bulbs still in growth and are both flowering now.

I will transfer some bulbs from each of these into a sand bed when I repot.



**Allium parvum bulbs**

I have started the repotting and am working through some of the pots of young seedling bulbs, especially the Alliums, which I am transferring from the pots over to the sand bed benches. I think nature often hides the most interesting part of a plant underground and when you look carefully at the bulbs you will see what I mean – such fascinating forms and colours.



**Allium uniflorum bulbs**



**Allium siskiyouense** bulbs



**Allium barsczewskii**

The previous ones were North American species: *Allium barsczewskii* is an Asian species and has a different form of bulb which forms clusters.



### **Crocus aeneus seedling corms**

I don't usually repot seedling bulbs until at least the end of the second year's growth but I want to transfer some of these into the sand bed so I am doing it early. It is especially important when repotting seedling bulbs for the first time to take note of the depth where the bulb is growing and to ensure that you replant it to at least the same depth. If you plant it shallower you will slow the growth as the bulb will have to work its way back down again.



### **Crocus aeneus seedling corms replanted deep.**

Never be afraid that the small bulbs will struggle to send a leaf to the surface if you plant them deep – that could not be further from the truth. Bulbs of whatever size can easily grow a leaf long enough to reach the surface while it takes a great deal of effort over a number of seasons for the bulb to work its way down into the soil.



**First year *Narcissus pallidiflorus* seedling bulbs.**

Similarly with these *Narcissus pallidiflorus* bulbs: I split them between the sand bed and a pot taking care to ensure they were at least as deep in the sand or pot as they were in the seed pot – they were almost at the bottom of the 7cm pot. I did sow the seeds deeply last year and have also a few of the empty seed coats in the photograph these were still present in the layer beside the small bulbs which emerged from them.



**Muscari bulbs**



***Lilium monadelphum***





**Lilium monadelphum**

The last few pictures for the this week is of another lilies in flower to encourage it to set seed I am not just leaving it to nature I am out with my paint brush pollinating the flowers.....